

It is claimed:

1. A client-side apparatus for handling media capable of being provided by a plurality of provider computer systems to a client computer, comprising:

5 a sniffer module for use on the client computer that determines capabilities of the client computer related to handling the media;

wherein a first provider computer system is selected based upon the determined capabilities of the client computer, and a network connection is to be established so that the selected first provider computer system may provide the media to the client computer;

10 a metrics calculator module for use on the client computer that examines a connection characteristic of the network connection as the media is being delivered from the first provider computer system to the client computer; and

15 a stream switcher module for use on the client computer that includes a data pathway to the metrics calculator module, said stream switcher module ceasing delivery of the media from the first computer provider based upon the examined connection characteristic satisfying a preselected criterion, said stream switcher module selecting a second computer provider to deliver the remaining portion of the media to the client computer.

20 2. The apparatus of claim 1 wherein the media includes streaming media, said streamed media including video and audio data.

3. The apparatus of claim 1 wherein the provider computer systems are streaming media providers.

4. The apparatus of claim 1 wherein the sniffer module examines whether the client has the necessary components required to experience the media.

5. The apparatus of claim 4 wherein the sniffer module determines bandwidth for delivering the media to the client computer, wherein a first provider computer system is selected based upon the determined capabilities of the client computer and the determined bandwidth.

6. The apparatus of claim 1 wherein during streaming of the media, the metrics calculator module monitors bandwidth of the streaming media being received on the client-side, and compares that measurement to a predetermined percentage of bandwidth considered to be the minimum required for an acceptable user experience.

7. The apparatus of claim 6 wherein if the metrics calculator determines the bandwidth to be below the acceptable level, then the stream switcher module pauses the media stream, records current play time of the media stream, and examines a list of provider computer systems for the next available one to deliver the remaining portion of the media.

8. The apparatus of claim 6 wherein the network connection includes an Internet connection over which the media is delivered to the client computer.

9. The apparatus of claim 1 further comprising:

a provider list file that contains available computer provider systems and their associated delivery characteristics,

wherein the first provider computer system is selected based upon a comparison of the determined capabilities and the characteristics contained in the provider list file,

5 if the first provider computer system does not maintain a bandwidth within a preselected acceptable level, then the next available provider computer system contained in the list is selected to continue hosting the media.

10 10. The apparatus of claim 9 wherein if none of the provider computer systems on the list is available, then a message is sent to the user announcing that the streaming media cannot be viewed at the present time.

15 11. The apparatus of claim 10 wherein if none of the provider computer systems on the list is available, then client-side script is executed that redirects the user to a non-streaming media web page.

12. The apparatus of claim 1 further comprising:

a statistics collector module that collects client viewing statistics, and stores these statistics for analysis of the client computer's handling of the media and the provider computer systems' handling of the media.

13. The apparatus of claim 12 wherein the statistics collected by the statistics collector module includes statistics consisting of an identifier of the streaming media being played, type of player

being used, connection speed, number of lost packets of media data, number of recovered packets of media data, reception quality, what the client time zone is, how many times the stream switcher switched over to another provider computer system, how many provider computer systems were tried, which provider computer system was chosen, and combinations thereof.

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14. The apparatus of claim 12 wherein the collected statistics are sent to a server-side database for storage, wherein the stored statistics are used by a second sniffer module located on a second client computer in order to select a provider computer system to deliver media to the different client computer.

15. The apparatus of claim 1 further comprising:

multiple provider hosting code located on the client computer that is added to code for handling the streaming of the media.

16. The apparatus of claim 15 wherein the code that handles the streaming of the media is hypertext markup language (HTML) code.

17. The apparatus of claim 15 wherein the metrics calculator module examines the connection characteristic when the streaming of the media occurs.

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18. The apparatus of claim 1 where delivery optimization occurs in real-time as the media is being received at a client system.

19. The apparatus of claim 18 wherein the preselected criterion is delivery bandwidth, wherein the stream switcher module switches to the second provider computer system in order to ensure streaming media is substantially continuously played at a desired bandwidth.

20. A computer-implemented method for handling media capable of being provided by a plurality of provider computer systems to a client computer, said method being performed on the client computer and comprising the steps of:

determining capabilities of the client computer related to handling the media;

determining bandwidth for delivering the media to the client computer;

selecting a first provider computer system based upon the determined capabilities of the client computer and upon the determined capabilities of the client computer and the determined bandwidth;

establishing a network connection so that the selected first provider computer system provides the media to the client computer;

examining bandwidth of the network connection as the media is being delivered from the first provider computer system to the client computer;

ceasing delivery of the media from the first computer provider based upon the examined bandwidth satisfying a preselected criterion;

selecting a second computer provider to deliver the remaining portion of the media to the client computer;

examining bandwidth of the network connection as the media is being delivered from the second provider computer system to the client computer;

ceasing delivery of the media from the second computer provider based upon the examined bandwidth associated with the second provider computer system satisfying a preselected criterion; and

selecting a third computer provider to deliver the remaining portion of the media to the client computer.